

COLLECTING GORILLA BRAINS.

AT A recent meeting of the Academy of Natural Sciences of Philadelphia, Dr. Henry C. Chapman described three gorilla brains collected by the Rev. R. H. Nassau, D.D., in 1890, upon the Ogove River, West Africa. The brains have been presented by him, through Dr. Thos. G. Morton, to the academy. Dr. Chapman's observations upon these brains are embodied in a paper now in the course of publication in the Academy's Proceedings. At the close of Dr. Chapman's communication, Dr. Nassau related his experiences when obtaining the brains. The appended extracts are from two letters written by him to Dr. Morton in 1890, in which he tells the story of the two expeditions he made to obtain them. The extracts have been made by the kind permission of these gentlemen. JAS. E. IVES.

TALAGUGA, OGOVE RIVER,
GABOON AND CORSICO MISSION,
WEST AFRICA, MARCH 7, 1890.

I made all plans with great forethought as to details; the season would be cool and dry, when I could hunt with less discomfort; no flooded low grounds; a large proportion of the leaves fall in the dry season, leaving the thickets less dense and giving better chance for spying animals. There are scarcely any gorillas in this Talaguga region; I have known of but two being killed during the eight years I have been here. So I closed my house and went down the seventy miles to Kângwe. There I chose a good crew of eight young men. Four carboys of chloride of zinc had been carefully kept all these years; I took a jugful of it. Not to waste my alcohol (in which was to be immersed the brain as it should finally go to you), I took along several gallons of rum. . . . Proper receptacles were taken for receiving the brains. I took my Winchester and double-barrelled gun (suitable for either shot or bullet), and invited with me one of our French associates, M. Gacon, a Swiss sharpshooter, who had the latest Swiss army breach-loading rifle. For the native hunters I took two of the best (very poor at best) flint-lock muskets from the Trading House, good for two weeks, etc.

From this point I will copy from my diary written at the time.

"Wednesday, July 17, 1889. Rose early and by 9 A.M. were at our destination. M. Gacon, after our noon meal, impatiently went out to hunt with Ogula. They returned having seen signs of gorillas, but not having seen the animals themselves. A council was held in the evening with the villagers as to time, routes and the art of hunting a gorilla. Everybody was sure I should not be in the village four days without succeeding; they told wonderful stories of the numbers and audacity of the gorillas, that not two days passed but that somebody saw them in the gardens. As the garden work is done principally by women, it was they who most frequently saw them, sometimes actually meeting them in the path and being pursued by males. From all their accounts the gorilla is full of the arts and tricks of the monkey tribe, quick to read faces. The women being unarmed and afraid, the animals were more daring to them than to men. But they all said that we white people would have no chance of getting so near, that the animals would detect our strange odor and fear our white faces. They hoped we would kill many, for their gardens were devastated by gorillas, pigs, oxen and elephants. Most of the men said that though they often saw these animals, they were afraid to shoot with their flint-locks that often uncer-

tainly flashed in the pan or whose slug-shots were not immediately fatal; that then they were at the mercy of the wounded beasts. They warned us, if we met with a male gorilla who dared to face us, not to fire till only a few yards distant, and, even then, not to aim at the head, for the animal had the art, being acquainted with guns, and all have informed each other (so the natives believe), of ducking down its head at the click of the trigger. We were to aim at the abdomen, which from its size could not fail to be injured, and the head or chest would probably be pierced by the animal's having ducked its head down to dodge a shot aimed, as it supposed, at its head.

"Thursday, July 18. We all went, some fourteen men and eight dogs, in the boat to a large island shortly after sunrise. My own crew of six were afraid and I left them in the boat, and Ogula described the lie of the land so that they were to follow around to another part where we should probably emerge. The rest of us entered the thicket, very dense; it grows up so wherever there are abandoned plantations. The original forest is easily threaded, for the dense foliage of the tall trees kills out by its shade the underbrush. But the gorillas are looked for mostly in the plantations, old and new. But after four hours of search nothing was heard or even seen except the tracks of the wild pigs. In the afternoon Okendo, whose plantation was on another part of the island we had been at, came in frantic haste saying a gorilla was just seen by his wife. We went. Sure enough, there were the pieces of sugar-cane the beast had chewed and spat from his mouth, still wet with spittle, and the broken branches of cassava marked his exit from the garden. We divided into three companies, to the right and left and centre. I was in the centre with Osamwamani. M. Gacon went with Ogula to the right. Ogula was the only one who saw the gorilla, a female; but it disappeared before he could draw on it. This stimulated our plans that night for the next day's work.

"Friday, July 19. M. Gacon started in a canoe with three men at 5 A.M., and I followed an hour later in the boat with my crew and four men, the crew as usual awaiting us in the boat. We went in the general region of the previous afternoon; there were frequent and fresh signs, dung still warm. The thicket was impossible to be passed by a human being in any other than the too noisy way of cutting with the long knives we carried, or by crawling on our bellies under the mass. The mass of vines, bushes and, worst of all, a grass growing many yards in length whose long, narrow leaves were, on their edges, as sharp as knives. The density of this growth above killed out the leaves lower down, and the thicket was tunnelled with many passages, intersecting and opening out into spaces of a square rod or two where might be a clump of trees, and where the animals had their sleeping places on the lower branches. You perceive that even if a gorilla was heard or sighted in such a thicket while we were crawling on our bellies, it could get away before we could snatch our gun into position, and, if the animal should only be wounded, we should be in a very ugly place for defending ourselves. The trail became so hot we were sure the animal was near. We divided, M. Gacon going with Ogula to one side and I and Osamwamani to the other. Suddenly we heard the dog Hector barking sharply, and shortly after the screams of a baby gorilla. The noises did not seem to be more than forty or fifty feet from us; we could see nothing. The barking became more savage, the screams more agonized, and, as we tore our way through the thicket, there was added the angry howl of a

parent gorilla. Everybody took his own way, losing sight of each other, following the sounds, along our several radii, to the fierce centre. But the bark ceased with a yelp; the screams and howl rapidly receded, faster than we could follow. I emerged into a small open glade, where stood Ogula, M. Gacon and Hector. The dog had come upon a mother and child at the foot of a tree in a hollow, which was still warm. The mother had fled at first sight, but had returned at the screams of the child, which the dog had seized. It was just at this moment that M. Gacon and Ogula saw them. The mother slapped the dog with her hand and the dog dropped the child with a yelp of pain. Ogula allowed the precious moment to pass, fearing to kill the dog with the slugs of his musket. M. Gacon was in his rear and emerged on the scene just as the mother, who had picked up her child, disappeared. He had not a moment's time to get his rifle into position. On our way back to the boat we came to a large glade, where evidently there must have slept that very night not less than twenty gorillas. It was exasperating that we had been only a few hundred yards from that spot the afternoon before and that very morning. All our hands and faces were cut and bleeding by the fearful grass in that frantic rush, and I had hurt my knee by a fall over a log. So we rested and mended ourselves during the afternoon in the village.

"Saturday, July 20. We all rose at three A.M., and, volunteers and all, went to a new place, where on the previous day a large male gorilla had been reported. I did not like the plan, I wanted to go to yesterday morning's region; but Ogula was overpersuaded by the volunteers. Their plan was to form a line across the long point on which the animal had been heard on the previous afternoon. We entered the forest in the dark of the morning. I am not accustomed to such exhausting work before breakfast, and when, after a fruitless search, we emerged again, I was provoked to find that three old volunteers had changed their minds, had not followed us, and were resting comfortably on the sandy beach munching peanuts.

"Monday, July 22. M. Gacon went out with the hunters to a new place, where a gorilla had been heard on Sabbath, but they returned fruitless; M. Gacon had shot a flying squirrel. He went out again in the afternoon alone, but saw nothing.

"Tuesday, July 23. Ogula and Osamwamani, ashamed over our ill-success, declared I should have a gorilla that very day, and went without us before daylight to a distant place. They returned in the evening having seen many gorillas, some of which had taken refuge in high tree-tops beyond the range of their muskets. They regretted not having taken us along. We gave up the search for a gorilla. My knee was still inflamed and M. Gacon's enthusiasm waned. We could not deny that there were gorillas in abundance, but the difficulties in obtaining them were just as obvious."

During all these years from 1882 to 1889, while I was prevented from hunting myself, I had employed a hunter, Azâze, living at Orânga, about 35 or 40 miles down the river from Kângwe, promising him a good reward if he brought me a dead gorilla in good condition. To get it to me in good condition at Kângwe he would have to start immediately and pull day and night. He brought two carcasses here while I was away at Talaguga some years ago, and they were lost, there being no one here to open a skull carefully. He sent a third, a small one, just a year ago. It reached me here just as I was starting up to Talaguga. I had actually stepped into the boat and in five minutes should have started.

The messenger had arrived during the night, but had taken his leisure to deliver it. I would have stopped the journey, but the carcass was then spoiled, and what I would have given a large sum for twenty-four hours earlier I threw into the river as worth nothing. His last effort was eight months ago, the week before I went on the hunt to the lake. It was a very large old male. Azâze had made a desperate effort to reach here with it safe. He arrived on a Sabbath noon. I did not go to the water-side to see it, my principles would not allow me to work on it on the Sabbath; but early Monday A.M. I got the brain out, but it was then too soft.

KANGWE MISSION STATION, OGOVE RIVER,
WEST AFRICA, October, 2, 1890.

This year in July I went again to another part of the same lake, Kângwe, and hired two native Bakele hunters. They saw in two days' hunting both elephants and gorillas, but failed to kill any. But some Galwa young men, knowing my errand, went out on their own account and found five gorillas, an old male, three females, and a stout grown lad. The place was in sight and gun-sound of the village where I was waiting across one of the beautiful bays of the lake. The females fled; the old male showed some fight, but fled when the lad was shot. The carcass was brought to me still warm. I had a carpenter's back-saw and a chisel, I worked with care; but in my anxiety at the last I gave an unfortunate blow or two and wounded the brain, and much of it exuded under the astringing influence of the chloride of zinc; also, I had no alcohol and had to use trade rum, and I fear that the brain has not been kept by it from decay. A few days later, I by a very, very rare chance bought two gorilla male children; they were in good condition and tamed. The servant in whose care I left them at this place, Kângwe, during a few days' absence neglected them and they were attacked by "driver" ants the night of the day before my return. One survived twelve and the other forty-eight hours. Their cries for help had been disregarded, and when I discovered them they could only moan. I combed thousands of ants off of them. That servant of mine had also neglected to feed them, and they were partly starved before the ants attacked them. The second of these I finally killed, seeing it was dying; and, working very carefully with the chisel, using no mallet, loosened the brain without injuring the membranes. I was afraid to work down toward the base of the brain, so I left it adhering and sawed away the face so as to make the mass small enough to enter the jar. I enveloped it and also the first brain in separate muslin bags so that they should not abrade each other.

That attack by driver ants was made at this house, Kângwe; and one of the little fellows, the one that I finally killed, was still living next day when I started up river by my boat to my Talaguga home, 70 miles, a four days' journey. It died at night at my first camp on a sand-bar in the river, and I did the work at midnight by torch-light. I put the brain in the chloride, and on arrival at my house three days later, put it into rum.

R. H. NASSAU.

NOTES AND NEWS.

IN connection with the celebration of the fourth centenary of the discovery of America by Columbus, the Italian Botanical Society, says *Nature*, invites the attendance of botanists of all countries at a Botanical International Congress, to be held at Genoa, from the 4th to the 11th of September. In addition to the meeting for scientific purposes, there will be excursions on the shores of the Mediterranean and in the Maritime Alps; and during the same time will also take place the inauguration of the